# SD

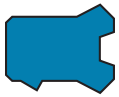
Wear and dry run are largely prevented by additional lubricant retained within the gap created by the secondary lip. In some cases this second sealing lip may even act as a substitute for a costly tandem sealing system when complete sealing under certain working conditions can only be achieved by two seals placed one behind the other in separate housing.

It's designed to be less sensitive to pressure fluctuations than typical "U" seals.

The material used to produce this seal is a polyurethane compound that ensures excellent properties on wear-resistance, extended service life and resistance against extrusion.

- Good sealing performance as well as at low pressure
- Extended service life
- Excellent wear-resistance
- Good temperature resistance
- Insensitive to pressure fluctuation
- Easy installation without expensive auxiliaries

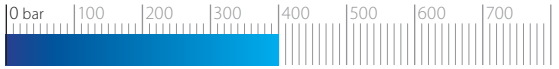
## MATERIAL



| Type | Designation | Hardness |
|---|---|---|
| Polyurethane | SEALPUR 93 | 93 °ShA |

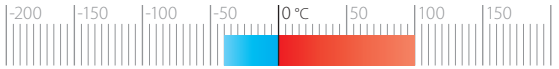
## FIELD OF APPLICATION

**Pressure**
≤ 400 bar




**Speed**
≤ 0.5 m/s


**Temperature**
–40°C ÷ +100°C




**Fluids**
Hydraulic oils (mineral oil based)
For other fluids contact our technical department

## SURFACE ROUGHNESS

| | | |
|---|---|---|
| Dynamic surface | Ra ≤ 0.3 µm | Rt ≤ 2.5 µm |
| Static surface | Ra ≤ 1.6 µm | Rt ≤ 6.3 µm |

## GAP DIMENSION "g"

The largest gap dimension appearing in operation on the non-pressurised side:

| | | | |
|---|---|---|---|
| 50 bar | 1.20 mm | 300 bar | 0.25 mm |
| 100 bar | 0.80 mm | 400 bar | 0.17 mm |
| 200 bar | 0.40 mm | | |

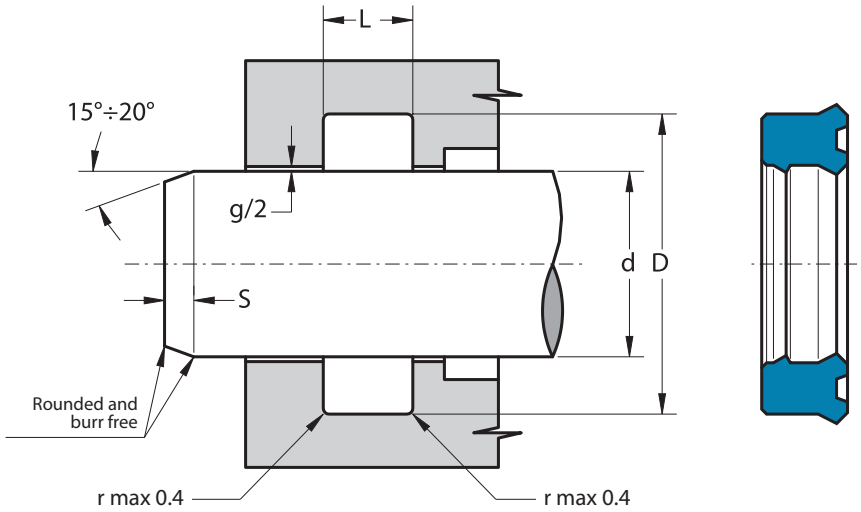
## LEAD-IN CHAMFERS

| d | Smin |
|---|---|
| less 100 | 5 mm |
| 100÷200 | 7 mm |
| over 200 | 10 mm |

To avoid damaging the sealing lips during installation, housing must have rounded chamfers. Sharp edges and burrs within the installation area of the seal must be removed.

The above data are maximum values, they may be maintained for short periods and can not be used at the same time simultaneously.

# SD

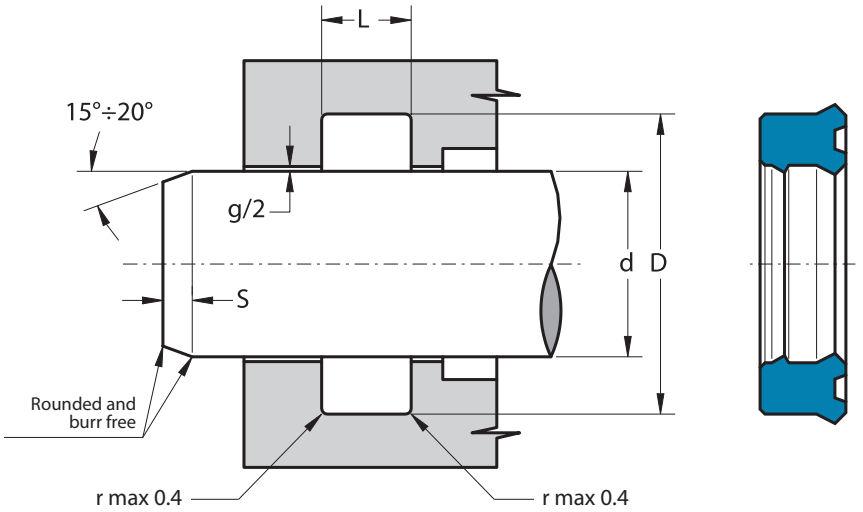



| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| SD 6 14 5.8 | 6 | 14.0 | 6.3 |
| SD 8 15 5.8 | 8 | 15.0 | 6.3 |
| SD 8 16 5.8 | 8 | 16.0 | 6.3 |
| SD 10 16 4.9 | 10 | 16.0 | 5.4 |
| SD 10 18 5.8 | 10 | 18.0 | 6.3 |
| SD 12 19 5.6 | 12 | 19.0 | 6.1 |
| SD 12 19 5.8 | 12 | 19.0 | 6.3 |
| SD 12 20 5.8 | 12 | 20.0 | 6.3 |
| SD 12 23 6.5 | 12 | 23.0 | 7.5 |
| SD 14 20 4.8 | 14 | 20.0 | 5.3 |
| SD 14 22 5.8 | 14 | 22.0 | 6.3 |
| SD 15 21.5 4.2 | 15 | 21.5 | 4.7 |
| SD 15 23 5.8 | 15 | 23.0 | 6.3 |
| SD 16 24 5.8 | 16 | 24.0 | 6.3 |
| SD 18 24 4.7 | 18 | 24.0 | 5.2 |
| SD 18 25 5 | 18 | 25.0 | 5.7 |
| SD 18 26 5.8 | 18 | 26.0 | 6.3 |
| SD 18 26 8 | 18 | 26.0 | 9.0 |
| SD 18 28 5.8 | 18 | 28.0 | 6.3 |
| SD 18 28 7 | 18 | 28.0 | 8.0 |
| SD 20 26 5 | 20 | 26.0 | 5.5 |
| SD 20 26 5.2 | 20 | 26.0 | 5.7 |
| SD 20 27 5.8 | 20 | 27.0 | 6.3 |
| SD 20 28 5.8 | 20 | 28.0 | 6.3 |

| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| SD 20 28 7 | 20 | 28.0 | 8.0 |
| SD 20 30 4.5 | 20 | 30.0 | 5.0 |
| SD 20 30 7 | 20 | 30.0 | 8.0 |
| SD 22 30 5.8 | 22 | 30.0 | 6.3 |
| SD 22 30 6 | 22 | 30.0 | 7.0 |
| SD 22 30 7 | 22 | 30.0 | 8.0 |
| SD 22 32 7 | 22 | 32.0 | 8.0 |
| SD 22 32 8 | 22 | 32.0 | 9.0 |
| SD 24 34 5.8 | 24 | 34.0 | 6.5 |
| SD 25 32 6 | 25 | 32.0 | 7.0 |
| SD 25 33 5.8 | 25 | 33.0 | 6.3 |
| SD 25 33 6.5 | 25 | 33.0 | 7.5 |
| SD 25 33 7 | 25 | 33.0 | 8.0 |
| SD 25 33 8 | 25 | 33.0 | 9.0 |
| SD 25 35 5.8 | 25 | 35.0 | 6.3 |
| SD 25 35 7 | 25 | 35.0 | 8.0 |
| SD 25 35 8 | 25 | 35.0 | 9.0 |
| SD 25 36 5 | 25 | 36.0 | 5.5 |
| SD 27 37 5.8 | 27 | 37.0 | 6.3 |
| SD 28 36 5.8 | 28 | 36.0 | 6.3 |
| SD 28 36 8 | 28 | 36.0 | 9.0 |
| SD 28 38 7 | 28 | 38.0 | 8.0 |
| SD 30 38 5.8 | 30 | 38.0 | 6.3 |
| SD 30 38 7 | 30 | 38.0 | 8.0 |

| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| SD 30 38 8 | 30 | 38.0 | 9.0 |
| SD 30 40 6.5 | 30 | 40.0 | 7.5 |
| SD 30 40 7 | 30 | 40.0 | 8.0 |
| SD 30 40 9 | 30 | 40.0 | 10.0 |
| SD 30 40 10 | 30 | 40.0 | 11.0 |
| SD 32 40 5.8 | 32 | 40.0 | 6.3 |
| SD 32 40 6.7 | 32 | 40.0 | 7.7 |
| SD 32 40 8 | 32 | 40.0 | 9.0 |
| SD 32 42 7 | 32 | 42.0 | 8.0 |
| SD 32 42 8 | 32 | 42.0 | 9.0 |
| SD 32 42 10 | 32 | 42.0 | 11.0 |
| SD 32 47 10 | 32 | 47.0 | 11.0 |
| SD 34 41 5 | 34 | 41.0 | 5.5 |
| SD 35 43 5.8 | 35 | 43.0 | 6.3 |
| SD 35 43 6.2 | 35 | 43.0 | 7.0 |
| SD 35 43 8 | 35 | 43.0 | 9.0 |
| SD 35 44 7 | 35 | 44.0 | 8.0 |
| SD 35 45 5.8 | 35 | 45.0 | 6.3 |
| SD 35 45 7 | 35 | 45.0 | 8.0 |
| SD 35 45 10 | 35 | 45.0 | 11.0 |
| SD 35 45 12.5 | 35 | 45.0 | 13.5 |
| SD 35 50 10 | 35 | 50.0 | 11.0 |
| SD 36 44 5.8 | 36 | 44.0 | 6.3 |
| SD 36 44 6.3 | 36 | 44.0 | 7.0 |

# SD

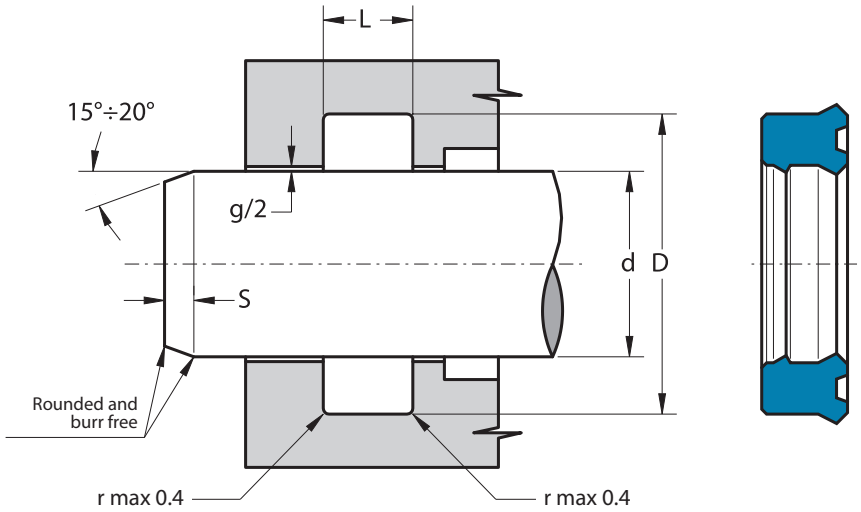



| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| **SD 36 44 8** | 36 | 44.0 | 9.0 |
| **SD 36 46 7** | 36 | 46.0 | 8.0 |
| **SD 36 46 10** | 36 | 46.0 | 11.0 |
| **SD 37 47 7** | 37 | 47.0 | 8.0 |
| **SD 37 47 8** | 37 | 47.0 | 9.0 |
| **SD 37 47 10** | 37 | 47.0 | 11.0 |
| **SD 38 45 6** | 38 | 45.0 | 7.0 |
| **SD 38 48 6** | 38 | 48.0 | 7.0 |
| **SD 38 50 8.5** | 38 | 50.0 | 9.5 |
| **SD 40 48 5.8** | 40 | 48.0 | 6.3 |
| **SD 40 48 6** | 40 | 48.0 | 7.0 |
| **SD 40 48 8** | 40 | 48.0 | 9.0 |
| **SD 40 50 5.8** | 40 | 50.0 | 6.3 |
| **SD 40 50 7** | 40 | 50.0 | 8.0 |
| **SD 40 50 10** | 40 | 50.0 | 11.0 |
| **SD 40 55 10** | 40 | 55.0 | 11.0 |
| **SD 42 50 6** | 42 | 50.0 | 7.0 |
| **SD 42 52 8** | 42 | 52.0 | 9.0 |
| **SD 42 53 9** | 42 | 53.0 | 10.0 |
| **SD 45 53 5.2** | 45 | 53.0 | 5.7 |
| **SD 45 53 5.8** | 45 | 53.0 | 6.3 |
| **SD 45 53 8** | 45 | 53.0 | 9.0 |
| **SD 45 55 5.8** | 45 | 55.0 | 6.3 |
| **SD 45 55 7** | 45 | 55.0 | 8.0 |

| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| **SD 45 55 10** | 45 | 55.0 | 11.0 |
| **SD 45 57 9** | 45 | 57.0 | 10.0 |
| **SD 45 60 10** | 45 | 60.0 | 11.0 |
| **SD 45 60 11.5** | 45 | 60.0 | 12.5 |
| **SD 46 54 7.5** | 46 | 54.0 | 8.5 |
| **SD 48 60 6** | 48 | 60.0 | 7.0 |
| **SD 50 58 8** | 50 | 58.0 | 9.0 |
| **SD 50 60 7** | 50 | 60.0 | 8.0 |
| **SD 50 60 8** | 50 | 60.0 | 9.0 |
| **SD 50 60 9** | 50 | 60.0 | 10.0 |
| **SD 50 60 10** | 50 | 60.0 | 11.0 |
| **SD 50 62 8** | 50 | 62.0 | 9.0 |
| **SD 50 62 10** | 50 | 62.0 | 11.0 |
| **SD 50 65 10** | 50 | 65.0 | 11.0 |
| **SD 50 65 11.5** | 50 | 65.0 | 12.5 |
| **SD 50 70 13.5** | 50 | 70.0 | 14.5 |
| **SD 52 64 10** | 52 | 64.0 | 11.0 |
| **SD 55 63 8** | 55 | 63.0 | 9.0 |
| **SD 55 65 7** | 55 | 65.0 | 8.0 |
| **SD 55 65 10** | 55 | 65.0 | 11.0 |
| **SD 55 65 12** | 55 | 65.0 | 13.0 |
| **SD 55 70 9.5** | 55 | 70.0 | 10.5 |
| **SD 56 66 6.5** | 56 | 66.0 | 7.5 |
| **SD 56 66 10** | 56 | 66.0 | 11.0 |

| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| **SD 56 71 9.5** | 56 | 71.0 | 10.5 |
| **SD 56 71 11.5** | 56 | 71.0 | 12.5 |
| **SD 60 68 7** | 60 | 68.0 | 8.0 |
| **SD 60 68 8** | 60 | 68.0 | 9.0 |
| **SD 60 68 11.5** | 60 | 68.0 | 12.5 |
| **SD 60 70 7** | 60 | 70.0 | 8.0 |
| **SD 60 70 10** | 60 | 70.0 | 11.0 |
| **SD 60 70 11.5** | 60 | 70.0 | 12.5 |
| **SD 60 70 12** | 60 | 70.0 | 13.0 |
| **SD 60 72 9** | 60 | 72.0 | 10.0 |
| **SD 60 75 10** | 60 | 75.0 | 11.0 |
| **SD 61 69 7.5** | 61 | 69.0 | 8.5 |
| **SD 63 71 8** | 63 | 71.0 | 9.0 |
| **SD 63 73 10** | 63 | 73.0 | 11.0 |
| **SD 63 75 8.5** | 63 | 75.0 | 9.5 |
| **SD 63 75 10** | 63 | 75.0 | 11.0 |
| **SD 63 78 11.5** | 63 | 78.0 | 12.5 |
| **SD 65 71 8** | 65 | 71.0 | 9.0 |
| **SD 65 73 5.8** | 65 | 73.0 | 6.3 |
| **SD 65 73 8** | 65 | 73.0 | 9.0 |
| **SD 65 75 12** | 65 | 75.0 | 13.0 |
| **SD 65 77 8.5** | 65 | 77.0 | 9.5 |
| **SD 68 76 8** | 68 | 76.0 | 9.0 |
| **SD 70 78 8** | 70 | 78.0 | 9.0 |

# SD



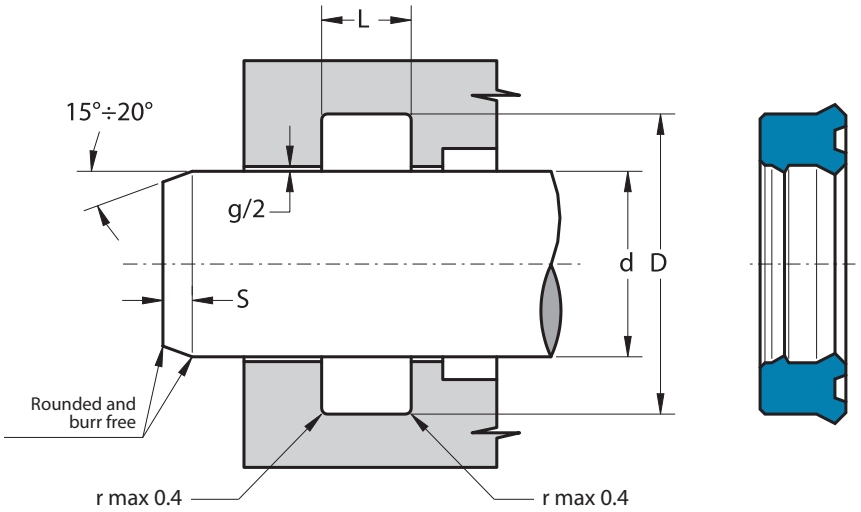

| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| SD 70 80 6.5 | 70 | 80.0 | 7.5 |
| SD 70 80 7 | 70 | 80.0 | 8.0 |
| SD 70 80 8 | 70 | 80.0 | 9.0 |
| SD 70 80 10 | 70 | 80.0 | 11.0 |
| SD 70 80 12 | 70 | 80.0 | 13.0 |
| SD 70 82 9 | 70 | 82.0 | 10.0 |
| SD 70 85 11 | 70 | 85.0 | 12.0 |
| SD 75 83 8 | 75 | 83.0 | 9.0 |
| SD 75 85 7 | 75 | 85.0 | 8.0 |
| SD 75 90 10.5 | 75 | 90.0 | 11.5 |
| SD 76 84 7.5 | 76 | 84.0 | 8.5 |
| SD 78 90 12 | 78 | 90.0 | 13.0 |
| SD 80 88 8 | 80 | 88.0 | 9.0 |
| SD 80 88 11.5 | 80 | 88.0 | 12.5 |
| SD 80 89 10 | 80 | 89.0 | 11.0 |
| SD 80 90 7 | 80 | 90.0 | 8.0 |
| SD 80 90 12 | 80 | 90.0 | 13.0 |
| SD 80 92 9 | 80 | 92.0 | 10.0 |
| SD 80 95 11 | 80 | 95.0 | 12.0 |
| SD 80 96 9.5 | 80 | 96.0 | 10.5 |
| SD 82 94 8 | 82 | 94.0 | 9.0 |
| SD 85 93 6.5 | 85 | 93.0 | 7.5 |
| SD 85 93 8 | 85 | 93.0 | 9.0 |
| SD 85 95 7 | 85 | 95.0 | 8.0 |

| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| SD 85 95 12 | 85 | 95.0 | 13.0 |
| SD 85 97 8.5 | 85 | 97.0 | 9.5 |
| SD 85 100 11.5 | 85 | 100.0 | 12.5 |
| SD 88 96 7.5 | 88 | 96.0 | 8.5 |
| SD 88.9 101.6 9.5 | 88.9 | 101.6 | 10.5 |
| SD 90 100 10 | 90 | 100.0 | 11.0 |
| SD 90 102 9 | 90 | 102.0 | 10.0 |
| SD 90 105 11.5 | 90 | 105.0 | 12.5 |
| SD 91 99 7.5 | 91 | 99.0 | 8.5 |
| SD 95 103 8 | 95 | 103.0 | 9.0 |
| SD 95 104 10 | 95 | 104.0 | 11.0 |
| SD 95 112 11 | 95 | 112.0 | 12.0 |
| SD 97 107 10 | 97 | 107.0 | 11.0 |
| SD 100 108 7 | 100 | 108.0 | 8.0 |
| SD 100 108 8 | 100 | 108.0 | 9.0 |
| SD 100 108 11.5 | 100 | 108.0 | 12.5 |
| SD 100 115 11.5 | 100 | 115.0 | 12.5 |
| SD 104 116 8 | 104 | 116.0 | 9.0 |
| SD 105 113 8 | 105 | 113.0 | 9.0 |
| SD 107 115 7.5 | 107 | 115.0 | 8.5 |
| SD 110 119 10 | 110 | 119.0 | 11.0 |
| SD 110 125 11 | 110 | 125.0 | 12.0 |
| SD 112 122 10.5 | 112 | 122.0 | 11.5 |
| SD 115 123 8 | 115 | 123.0 | 9.0 |

| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| SD 118 128 10 | 118 | 128.0 | 11.0 |
| SD 120 128 11.5 | 120 | 128.0 | 12.5 |
| SD 120 130 7 | 120 | 130.0 | 8.0 |
| SD 120 130 14 | 120 | 130.0 | 15.0 |
| SD 120 140 12 | 120 | 140.0 | 13.0 |
| SD 124 132 11.5 | 124 | 132.0 | 12.5 |
| SD 125 133 6.5 | 125 | 133.0 | 7.5 |
| SD 126 134 7.5 | 126 | 134.0 | 8.5 |
| SD 129 141 8 | 129 | 141.0 | 9.0 |
| SD 130 150 12 | 130 | 150.0 | 13.0 |
| SD 135 143 8 | 135 | 143.0 | 9.0 |
| SD 135 145 12 | 135 | 145.0 | 13.0 |
| SD 140 148 11.5 | 140 | 148.0 | 12.5 |
| SD 140 150 10 | 140 | 150.0 | 11.0 |
| SD 140 150 11.5 | 140 | 150.0 | 12.5 |
| SD 140 155 8 | 140 | 155.0 | 9.0 |
| SD 140 160 11.5 | 140 | 160.0 | 12.5 |
| SD 145 153 7.5 | 145 | 153.0 | 8.5 |
| SD 150 160 12.5 | 150 | 160.0 | 13.5 |
| SD 150 170 12 | 150 | 170.0 | 13.0 |
| SD 154 166 10 | 154 | 166.0 | 11.0 |
| SD 160 170 12 | 160 | 170.0 | 13.0 |
| SD 175 185 12 | 175 | 185.0 | 13.0 |
| SD 180 190 12.5 | 180 | 190.0 | 13.5 |

# SD






| Part. | d f7 | D H10 | L +0.25 |
|---|---|---|---|
| **SD 180 192 10** | 180 | 192.0 | 11.0 |
| **SD 180 200 12** | 180 | 200.0 | 13.0 |
| **SD 190 210 12** | 190 | 210.0 | 13.0 |
| **SD 210 230 15** | 210 | 230.0 | 16.0 |

Inch sizes

| | | | |
|---|---|---|---|
| **SD 4000 4500 0375** | 101.6 | 114.3 | 10.5 |
| **SD 4500 5000 0375** | 114.3 | 127.0 | 10.5 |
| **SD 5000 5500 0375** | 127 | 139.7 | 10.5 |